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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,803	05/09/2001	Richard Donald Berg	12929.1061US01	3572

23552 7590 02/09/2004  
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EXAMINER

COCKS, JOSIAH C

ART UNIT PAPER NUMBER

3749

DATE MAILED: 02/09/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/851,803

Applicant(s)

BERG, RICHARD DONALD

Examiner

Josiah C. Cocks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Reply to Applicant's Response*

1. In the response filed 1/20/04 Applicant argued that the examiner improperly relied on applicant's disclosure in equating high temperature glass and fused silica. In response the examiner withdraws the grounds of rejection relying upon applicant's disclosure. However, rejections including a newly cited reference to *Lefebvre* are included below. The Finality of the previous Office Action mailed 9/22/03 is withdrawn.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 7, 12, 15, 17-19, 21, 23, 24, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Butterfield* (US # 4,965,707) in view of *Butler et al.* (US # 6,53,165) (cited by applicant in IDS paper #5) and *Lefebvre* (US # 2,606,574).

*Butterfield* discloses in Figures 1-7 a method and apparatus for electrically simulating glowing embers within a fireplace similar to that described in applicant's claims 1-3, 7, 12, 15, 17-19, 21, 23, 24, 26, and 27 including an enclosure (2) defining a chamber (3), a support structure in the form of a translucent plate (see col. 3, lines 15-17) having an ember support

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surface (9), said support surface being disposed within the chamber (see Fig. 1), a plurality of translucent artificial embers/coals (8) in the form of colored glass that are loosely supported on the support surface (see col. 3, lines 14-16), and a light source (11) disposed within the chamber and positioned to pass light through at least a portion of the support structure to illuminate the translucent artificial embers (see col. 3, lines 16-27). *Butterfield* further discloses that the glowing embers may be embodied in a gas fire heating appliance (see col. 1, lines 1-8).

*Butterfield* possibly does not disclose that the glass embers are high temperature glass and specifically fused silica particles.

*Butler et al.* teaches simulated electric glowing embers in the same field of endeavor as *Butterfield* wherein the embers of *Butler et al.* are incorporated in a gas fireplace with a gas burner and the artificial embers are in the form of a plate (24) that is placed above light sources (26 and 27) and the artificial embers are specifically made of high temperature glass (see col. 2, line 60 through col. 3, line 10). *Lefebvre* is relied upon to show that a person of ordinary skill in the art would recognize that the high temperature glass recited in *Butler et al.* would include such materials as fused quartz and fused silica. *Lefebvre* specifically recites that fused silica is well known in the art to be a high temperature glass and that it is widely used in high temperature applications (see *Lefebvre*, col. 1, lines 5-11). A person of ordinary skill in the art would reasonably regard the high temperature glass recited in *Butler et al.* to include fused silica as it is well understood in the art that a recitation of a high temperature glass includes fused silica when used in high temperature applications. Therefore, the examiner considers that the high temperature glass of *Butler et al.* would be made of fused silica and meets the limitation in applicant's claims of fused silica particles.

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Therefore, in regard to claims 1-3, 7, 12, 15, 17-19, 21, 23, 24, 26, and 27, it would be obvious to a person of ordinary skill in the art at the time the invention was made to modify the artificial embers of *Butterfield* to be made of the high temperature glass of *Butler et al.* because when a simulated glowing ember assembly such as that of *Butterfield* is included in a gas fireplace such as in *Butler et al.* (specifically noted by *Butterfield*, col. 1, lines 1-8) the simulated ember assembly is subject to higher temperatures and is therefore made of a high temperature glass that can withstand the temperatures associated with gaseous combustion so that the ember assembly may be operated inside or at the floor of the gas fireplace combustion chamber (see *Butler et al.*, col. 1, lines 45-52). The recitation of a high temperature glass material in *Butler et al.* is understood in art to include fused silica particles (see *Lefebvre*, col. 1, lines 5-11).

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Butterfield* in view of *Butler et al.* and *Lefebvre* as applied to claim 1 above and further in view of *Auer* (US # 1,692,021).

*Butterfield* in view of *Butler et al.* and *Lefebvre* teach all the limitations of claim 4 except that the ember support bed comprises a mesh screen.

*Auer* teaches a fireplace having artificial translucent embers supported on a wire mesh (21).

Therefore, in regard to claim 4, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the ember support bed of *Butterfield* to incorporate the wire mesh of *Auer* for the purpose of providing an equivalent alternative means for supporting the artificial embers horizontally above a light source such that light is projected

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through the embers to simulate the appearance of actual burning embers (see page 1, lines 6-15 and 46-55).

5. Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Butterfield* in view of *Butler et al.* and *Lefebvre* as applied to claims 1 and 15 above, and further in view of British patent 249,321 to White (hereinafter "*White*").

*Butterfield* in view of *Butler et al.* and *Lefebvre* teach all the limitation of claims 5 and 16 except that the ember support bed comprises a perforated plate and a colored plate between the light source and artificial embers.

*White* teaches a fireplace having artificial translucent embers with a support plate (13) wherein the support plate may be clear or colored glass (see page 3, lines 59-60) or may be a perforated plate (see page 3, lines 65-67).

Therefore, in regard to claims 5 and 16, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the support bed of *Butterfield* to incorporate; the colored plate of *White* as a colored plate is a well known substitution for a clear plate for supporting artificial embers to provide the appearance of a simulated fire (see page 3, lines 59-64), and the perforated plate of *White* to allow the passage of heated air from a heat source beneath the ember support (see page 3, lines 65-67).

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Butterfield* in view of *Butler et al.* and *Lefebvre* as applied to claim 1 above, and further in view of British patent 2 072 832 to Busby et al. (hereinafter "*Busby et al.*").

*Butterfield* in view of *Butler et al.* and *Lefebvre* teach all the limitations of claim 6 except possibly for a gas burner positioned above the ember support surface to provide flames and heat upon combustion. *Butterfield*, however, does disclose that his simulated fireplace may be used in conjunction with a heating appliance producing a gas fire (see col. 1, lines 4-8).

*Busby et al.* teach a fireplace having artificial elements (23) supported on a plate (17) and a gas burner (2) positioned above the support plate.

Therefore, in regard to claim 6, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the fireplace of *Butterfield* to incorporate the gas burner arrangement of *Busby et al.* as this arrangement allows the fireplace to both simulate the appearance of a wood burning fireplace by providing a flame above a simulated coal or fuel bed and provide a means to produce heat (see page 1, lines 31-63).

7. Claims 8, 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Butterfield* in view of *Butler et al.* and *Lefebvre* as applied to claim 1 above, and further in view of "Glass" article from Microsoft®Encarta® Online Encyclopedia 2003 (hereinafter "the glass article").

In claims 8, 20, and 22, applicant further limits the material of the artificial embers to fused silica particles that may withstand temperatures of at least 3000 degrees Fahrenheit. As noted above, the high temperature glass artificial embers of *Butler et al.* are regarded as the fused silica particles. Further, as noted in the glass article, page 2 section A.6. it is well known in the art that glass may have melting or softening temperatures ranging from 900 degrees Fahrenheit to 3180 degrees Fahrenheit. Therefore, as *Butler et al.* teaches the use of high temperature glass

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for artificial embers, it would be obvious in view of the melting point ranges disclosed by the glass article that the melting point of this high temperature glass in *Butler et al.* would be on the higher side of the scale and would be at least 3000 degrees Fahrenheit.

8. Claims 9, 10, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Butterfield* in view of *Butler et al.* and the glass article as applied to claims 1 and 12 above, and further in view of *Whittaker et al.* (US # 4,726,351).

*Butterfield* in view of *Butler et al.* and the glass article disclose all the limitations of claims 9, 13, and 14, except possibly that the support structure defines at least one aperture to provide combustion air or combustion gas to the chamber. *Butterfield*, however, does disclose that his simulated fireplace may be used in conjunction with a heating appliance producing a gas fire (see col. 1, lines 4-8).

*Whittaker et al.* teach a simulated fireplace wherein a coal effect (40) functions as a collection of simulated embers and a support means for the embers and is arranged above a light source (52). *Whittaker et al.* further teach that the coal effect is used in conjunction with a gas burner wherein combustible air and gas are supplied through apertures (36C, 36D, 37C, 37D) in the coal effect (see col. 3, lines 55-65).

In regard to claim 10 and the limitation that the light source comprises components that withstand temperatures greater than 500 degrees Fahrenheit, as suggested by *Butterfield* (see col. 1, lines 4-8) and taught by *Whittaker et al.* it is well known that simulated fireplaces incorporate light source components near flame producing devices. Because of this proximity of the light source components to a flame (note particularly Fig. 1 of *Whittaker et al.*) it would be inherent



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that the components would be designed to withstand temperatures associated with a gas flame (i.e. 500 degrees Fahrenheit).

Therefore, in regard to claims 9, 10, 13, and 14, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the ember support of *Butterfield* to incorporate the support having combustion air and gas apertures as taught by *Whittaker et al.* for the desirable purpose of simulating the appearance of a natural flame by supplying combustion air and gas in a manner to produce a gas fire flame above the coal effect while preventing "sooting" (see col. 3, lines 55-61 and col. 4, lines 54-59).

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Butterfield* in view of *Butler et al.* and the glass article as applied to claim 10 above and further in view of *Hess et al.* (US # 5,642,580).

*Butterfield* in view of *Butler et al.* and the glass article disclose all the limitations of claim 11 except possibly that the light source is a halogen lamp.

*Hess et al.* teach a flame simulating assembly incorporating a simulated fuel/ember bed (26) illuminated by a light source (30) wherein the light source is a halogen lamp (see col. 3, lines 27-30).

Therefore, in regard to claim 11, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the light source of *Butterfield* to be a halogen lamp as taught by *Hess et al.* as it is well known in the art that in a simulated flame assembly incorporating a simulated ember bed and a light source for desirably illuminating the

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bed to resemble embers of a log burning fire the light source may be a halogen lamp (See col. 3, lines 8-11).

10. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Butterfield* in view of *Butler et al.* and the glass article as applied to claim 24 and further in view of *Rehberg* (US # 5,195,820).

*Butterfield* in view of *Butler et al.* and the glass article disclose all the limitations of claim 25 except possibly that a portion of the surfaces of the translucent artificial embers are dusted with paint.

*Rehberg* teaches a simulated fireplace having translucent artificial embers (20) wherein the undersurface of the embers are painted (see col. 3 lines 25-28).

Therefore, in regard to claim 25, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the embers of *Butterfield* to incorporate the painting of *Rehberg* for the desirable purpose of causing the embers to appear as an accurate simulation of the underlog glowing embers of a wood-burning fireplace (see *Rehberg*, col. 3, lines 26-31).

### ***Response to Arguments***

11. Applicant's arguments filed 1/20/04 have been fully considered but they are not persuasive. Applicant argues that the references cited do not show the use of fused silica particles and that the examiner improperly relied on applicant's disclosure in equating the high temperature glass recited in *Butler et al.* with the fused silica particles recite in applicant's

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claims. As noted above, the examiner has included the *Lefebvre* reference to show that it is understood in the art that a recitation of high temperature glass includes fused silica.

***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *Dumbaugh et al.* is included to further show the use of fused silica as a glass for use in high temperatures.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Josiah Cocks whose telephone number is (703) 305-0450. The examiner can normally be reached on weekdays from 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus, can be reached at (703) 308-1935. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

jcc  
February 5, 2004

  
JOSIAH COCKS  
PATENT EXAMINER  
ART UNIT 3749